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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,253	10/23/2003	Marwan Anwar Jabri	021318-001210US	9090

20350 7590 05/16/2005

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EXAMINER

SWERDLOW, DANIEL

ART UNIT PAPER NUMBER

2644

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/693,253

Applicant(s)

JABRI ET AL.

Examiner

Daniel Swerdlow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,10-12,15,21,22,27,33 and 34 is/are rejected.
- 7) ☒ Claim(s) 2-9,11-14,16-20,23-26 and 28-32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

Claim Objections

1. Claims 11 and 12 are objected to because of the following informalities: The claims end in two periods instead of one period. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 34 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 34 recites the limitation "the DTMF signal detection module" in line 4. There is insufficient antecedent basis for this limitation in the claim. To advance prosecution to the maximum degree possible, examiner makes a prior art rejection below based on the interpretation that the recitation is intended as "a DTMF signal detection module".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 33 is rejected under 35 U.S.C. 102(e) as being anticipated by Tian et al. (US 6,873,701).

6. Regarding Claim 33, Tian discloses a DTMF detector for use in a system with a speech coding algorithm based on analysis by synthesis principle (i.e., in a CELP domain) and determines and outputs DTMF tones based on LPC coefficients (i.e., CELP parameters) (Fig. 1, reference 110; column 3, lines 21-26; column 4, lines 35-41).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 10 through 12, 15, 21, 22, 27 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertrand (US 5,150,410) in view of Tian.

9. Regarding Claim 1, Bertrand discloses a conferencing system (Fig. 5) that mixes multiple CELP inputs (i.e., parameters) from multiple CELP codecs (Fig. 5, reference P1-PN) into a single composite speech signal (i.e., set of CELP parameters) without decoding into the speech signal domain (Fig. 6; column 3, lines 52-57). Therefore, Bertrand anticipates all elements of Claim 34 except coupling to a DTMF signal detection module. Bertrand further discloses that such a system makes use of standard signaling and setup methods (column 4, lines 15-18). Tian

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discloses a DTMF (i.e., standard signaling) detector that determines and outputs DTMF tones based on LPC coefficients (i.e., CELP parameters) (Fig. 1, reference 110; column 3, lines 21-26; column 4, lines 35-41) and is especially suited for use in a system with a speech coding algorithm based on analysis by synthesis principle (i.e., CELP). It would have been obvious to one skilled in the art at the time of the invention to apply the DTMF detector taught by Tian to the conferencing system taught by Bertrand for the purpose of implementing the standard signaling efficiently.

10. Regarding Claims 10 through 12 and 15, Bertrand further discloses a combination and analysis process (Fig. 5; column 4, lines 3-4) that corresponds to the transcoder claimed.

11. Claim 21 is essentially similar to Claim 1 and is rejected on the same grounds.

12. Regarding Claim 22, Tian further discloses use of energy parameters (column 5, lines 50-63).

13. Regarding Claim 27, Bertrand further discloses use of two or more input codecs (Fig. 5, reference P1-PN).

14. Regarding Claim 34, Bertrand discloses a conferencing system (Fig. 5) that mixes multiple CELP inputs (i.e., parameters) from multiple CELP codecs (Fig. 5, reference P1-PN) into a single composite speech signal (i.e., set of CELP parameters) without decoding into the speech signal domain (Fig. 6; column 3, lines 52-57). Therefore, Bertrand anticipates all elements of Claim 34 except coupling to a DTMF signal detection module. Bertrand further discloses that such a system makes use of standard signaling and setup methods (column 4, lines 15-18). Tian discloses a DTMF (i.e., standard signaling) detector that is especially suited for use in a system with a speech coding algorithm based on analysis by synthesis principle (i.e., CELP)

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(Fig. 1, reference 110; column 3, lines 21-26; column 4, lines 35-41). It would have been obvious to one skilled in the art at the time of the invention to apply the DTMF detector taught by Tian to the conferencing system taught by Bertrand for the purpose of implementing the standard signaling efficiently.

Allowable Subject Matter

15. Claims 2 through 9, 13, 14, 16 through 20, 23 through 26 and 28 through 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter:

17. Regarding Claim 2, Tian further discloses: likelihood ration determination and LSF analysis (Fig. 2, reference 214, 206) that together correspond to the feature computation unit claimed; a database (Fig. 2, reference 212) that corresponds to the feature pattern tables claimed; pattern matching (Fig. 2, reference 218) that corresponds to the comparison unit claimed and tone acceptance (Fig. 2, reference 208) that corresponds to the decision unit claimed. However, Tian has no structure or function corresponding to the feature buffer claimed. As such, the prior art fails to disclose or suggest all elements of the claim. Therefore Claim 2 is allowable matter.

18. Claims 3 through 6 are allowable matter due to dependence from Claim 2.

19. Regarding Claim 7, Bertrand further discloses a conferencing director (Fig. 5) that corresponds to the feature detection and mixing computation units claimed. However, Bertrand has no structure or function corresponding to the importance ranking or strategy determining

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claimed. As such, the prior art fails to disclose or suggest all elements of the claim. Therefore Claim 7 is allowable matter.

20. Claims 8, 9, and 16 through 20 are allowable matter due to dependence from Claim 7.

21. Regarding Claim 13, neither Bertrand nor Tian discloses use of CELP parameters representing silence descriptor frames.

22. Regarding Claim 14, Bertrand further discloses use with three inputs (column 4, lines 30-32) but fails to disclose or suggest a dynamic topology.

23. Claim 23 is essentially similar to Claim 2 and is allowable matter for the same reasons.

24. Claims 25 and 26 are allowable matter due to dependence from Claim 23.

25. Regarding Claim 24, Tian further discloses use of LPC analysis frames (column 3, lines 44-57) but does not disclose or suggest DTMF tone determination for every subframe.

26. Regarding Claim 28, neither Bertrand nor Tian discloses processing of CELP parameters representing silence descriptor frames or discontinuous transmission.

27. Claim 29 is essentially similar to Claim 7 and is allowable matter for the same reasons.

28. Claims 30 through 32 are allowable matter due to dependence from Claim 23.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel Swerdlow
Examiner
Art Unit 2644

ds

11 May 2005